# USDA - ARS - NCAUR Technologies for Transfer

National Center for Agricultural Utilization Research

# **Fantesk**<sup>tm</sup>

## What is this technology?

Starch, water and oil are processed by steam jet-cooking to form microscopic, starch-coated oil droplets. The resulting starch / oil composite is stable; can be used wet or dry; is simply produced, biobased and environmentally friendly.



### What problem does it address?

Standard emulsifiers are not able to deliver oil droplets of I -10 microns in a water-based medium. These larger droplets contribute to improved delivery, lubricating and protective properties.

# Who could use this technology?

Fantesk™ is already licensed for use in the following applications:

- Low fat meats
- Flavor delivery in battered, frozen seafood
- Seed coatings
- Anti-microbial lotions

Fields of use yet to be licensed include:

- Oil drilling lubricants
- Animal feed binders
- Drug delivery systems
- Others as determined by the vision of potential CRADA / licensing partners

#### How is this technology unique?

The starch-oil composite is the only known method to deliver I-I0 micron oil-droplets in a stable, water-based medium.

#### **Manufacturing / Licensing Opportunity**

This proven technology needs a manufacturer to produce material serving multiple different markets. Fantesk<sup>TM</sup> can be customized for specific uses by processing different ingredients with the same equipment.

CRADA and licensing partners are also needed to develop this material for other fields of use.

#### **Stage of Development**

Through CRADA partners, a diverse range of products have been tested and optimized; more than half are in commercial use.

#### **IP Status**

Awarded U.S. Patents 5,676,994; 5,882,713; 6,238,677; 6,669,962; 6,461,999; Additional patent pending

#### Contact Information

Dr. Frederick Felker • Phone: 309.681.6663 • Email: felkerfc@ncaur.usda.gov